

Errata

Statement 5.12, first displayed equation:

$$a(u, \varphi) = \langle f, \varphi \rangle_0, \quad \varphi \in H_0^1.$$

Section 5.3, third displayed equation:

$$\|f - p_n\|_{0,[0,h]} \leq \frac{1}{(n+1)!} h^{n+1} \|f^{(n+1)}\|_{0,[0,h]}.$$

Amendments

Bibliography, add a reference, which was brought to my attention by Christian Apprich:

[S] M.H. Schultz: *Rayleigh-Ritz-Galerkin methods for multidimensional problems*, SIAM J. Numer. Anal. 4(1969), 523-538.

Introduction, add a sentence after the first displayed equation:

... smooth positive function on D with $w|_{\partial D} = 0$. The idea of using weighted splines dates back at least to Schultz [S], who also derived very general error estimates. The construction of weight functions ...

Section 5.5, add a paragraph before Statement 5.10:

... desired estimate follows.

The second estimate can be viewed as a variant of Hardy's classical integral inequality. Numerous versions exist in the literature. In fact, (5.9) is a special case of results by Schultz [S], which has been reproved in [46]; the authors being unaware of the earlier result.

The proof of the second ...

Section 5.6, prolong the second to last sentence before Statement 5.11:

... the approximated function (compare with the results of Schultz [S] for unstabilized splines, which require slightly more regularity). As is customary ...